

BATCHEN
COMMANDER II & CONCEPT 2000
LP Gas DISPENSERS

INSTALLER'S MANUAL

For Models: CII-SCE, CII-DCE, CII-SWE, CII-DWE
& C2000-SE, C2000-DE

(updated Ref:010220JV02)
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PART 1

WARNINGS

WARNING

This equipment is designed to dispense Liquefied Petroleum Gas (LP Gas) to motor vehicles. It contains flammable liquefied gas under pressure and must be installed and serviced by persons trained and experienced in the safe handling of LP Gas, and in accordance with all relevant local and statutory regulations, and recognised industry procedures.

Failure to observe this warning may result in (but is not limited to):

- * the escape of flammable liquid or vapour;
- * explosion;
- * fire; or
- * freeze burns.

Note: Sudden, uncontrolled depressurisation may result in the propulsion of components at high velocity.

WARNING

Do not latch the nozzle in the open position.

If there is a leak at the nozzle and it is latched open, the nozzle cannot be shut off with out risk of freeze burns.

Incorrect connection or disconnection, or insufficient tightening of the nozzle may result in a substantial release of LP Gas when the trigger is operated.

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WARNING

The Batchen Commander is designed to refuel motor vehicles with LP Gas. Its use for filling domestic cylinders may contravene local regulations as the gas dispensed may not be suitable for domestic applications.

OPERATORS

Operators of this equipment should be fully trained in LP Gas refueling and emergency procedures as set out in AS1596 "SAA LP Gas Storage and Handling" Code. All operations must be carried out by authorised personnel in accordance with relevant local and statutory regulations.

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PART 2

INTRODUCTION

This manual is intended to provide information relating to the site preparation, installation and commissioning of the Batchen Commander II and Concept 2000 series of LP Gas Dispensers. The information is intended for use by suitably trained and experienced Autogas installation personnel, and those involved in the planning of Autogas installations.

Installation of the dispenser other than as specified in this manual may compromise safe operation of the dispenser. If in doubt about any aspect of the installation procedure, contact your local Batchen representative before proceeding.

It is assumed that all storage tanks, pipework and electrical wiring have been installed in accordance with local requirements.

A knowledge of relevant standards, statutory requirements and local government regulations is assumed.

Note: In this manual reference is made to relevant Australian Standards and regulations. Where the dispenser is being installed outside Australia these standards will still provide a guide to good engineering practice and copies can be made available if required. However, it is important that the installer ensures that the installation complies with local regulations wherever applicable.

Additional relevant information may be found in the associated Operator's and Service manuals (see Installation Accessories & Tools section for details).

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PART 3

TERMINOLOGY

Authorise	Confirmation from console to dispenser that sale may proceed.
Autogas	LP Gas used as a motor vehicle fuel.
Boot, Reboot	When referring to dispenser processor - starting/restarting the processor.
DIP Switch	Multi-pole PCB mounted switch, used for setting dispenser configuration.
Dual Dispenser	Two hoses per dispenser, two displays per side.
Duo Dispenser	Two hoses per dispenser, one display per side.
Fatal Error	Error causing an automatic dispenser/hose shutdown.
K-Factor	Dispenser calibration factor.
LED	Light Emitting Diode.
LP Gas	Liquefied Petroleum Gas.
PCB	Printed Circuit Board assembly.
Pre-authorised	Console configured so dispenser in a permanently authorised state.
RAM	Random Access Memory.
RFI	Radio Frequency Interference.
Self-serve	Control & monitoring of dispenser operation from remote console.
Side A	The side of the dispenser facing you when dispenser is viewed with the (major) column/Compliance Plate/nozzle receptacles on the left.
Side B	The side of the dispenser facing you when dispenser is viewed with the (major) column/Compliance Plate/nozzle receptacles on the right.
Single Dispenser	One hose per dispenser.
Special Segments	Centre section of main display, not normally visible; used to display status and error messages.

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Stand-alone Mode Refers to dispenser set up to operate independently of console.

SWA Cable Steel Wire Armoured Cable.

Toggle Alternate from one state to next.

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PART 4

SITE REQUIREMENTS & PREPARATION

4.1 General

Batchen LP Gas dispensers can be installed on any new or existing Autogas site, attended or self-serve, provided the site complies with the following requirements:

- * The location of the dispenser and associated equipment should be in accordance with AS1596, AS1596 - Supplement 1: Siting of LP Gas Automotive Retail Outlets and AS2430.3.
- * The pipe work installation should comply with AS2229.2 and AS1596.
- * The electrical installation should comply with AS2229.2 and AS3000.
- * If part of a self-serve system, the Console should be located such that the operator has an unobstructed view of all fuelling positions.

Note: It is the installer's responsibility to inform the owner/site operator of regulatory requirements. Contact your local Batchen representative if additional information is required.

Note: Multiple holes are provided in the dispenser base for flexibility in matching mounting bolts to existing dispenser bases.

Note: Spool pieces can be provided to adapt dispenser flange positions to existing site pipe work. Contact your local Batchen representative for details.

4.2 Electrical Cabling

Note: The mains power supply requirements of the Dispenser (Voltage, Current, Frequency) are specified on the Dispenser Compliance Plate.

Note: All electrical cabling must comply with AS2229.2 and AS3000.

Note: The Dispenser incorporates the facility to control the operation of a remote Pump.

Note: The Dispenser may be connected to a remote Console for controlling and recording transactions. If this facility ("self-serve") is required a communications cable must be provided.

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A number of different methods may be used to make electrical connection to the Dispenser:

- * SWA cables buried underground - one cable for mains and another shielded cable for dispenser communications.
- * Two conduits - one containing the mains cable and the other containing the shielded dispenser communications cable (the latter only required if self-serve).
- * One conduit - containing both the mains cable and the shielded dispenser communications cable (the latter only required if self-serve).

The cables required are as follows:

APPLICATION	MAINS + PUMP CONTROL	COMMUNICATIONS
Stand-alone	1 x 4 core, 2.5 mm ²	Not required
Self-serve	1 x 4 core, 2.5 mm ²	1 x 2 core + Shield, 1.5 mm ²

Note: Cable runs greater than 20 metres may require an increase in cable size.

Note: When replacing an existing dispenser ensure that conduit and SWA cables are terminated in the proper manner.

Note: While a stand-alone dispenser does not require provision of the communications cable, it may be advisable to install the cable at this time to facilitate later conversion to self-serve.

4.3 Emergency Shutdown System

AS1596 requires that the site be provided with an Emergency Shutdown System, the operation of which includes removing mains power from the Dispenser/s and closing the remote-operated valves located under the dispenser.

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4.4 Pipework

All pipework should comply with AS1596 and AS2229.2.

In particular, the following should be provided as a minimum:

- * An appropriately rated Excess Flow Valve should be fitted to the Liquid Inlet line.
- * A remote-operated Shut-off Valve should be fitted to the Liquid Inlet line; the design of the valve should be such that it will shut in the event of the energising medium failing.
- * A Shear Point on the pipe work at the base of the dispenser.

The valves should be installed below or as close as possible to ground level, with the shear point above them. Where the remote-operated valve can be relied on to close in the event of pipe shear, the excess flow valve may be omitted.

Batchen dispensers are supplied as standard with the flanged external hydraulic connections:

- * Liquid inlet flange: 32 mm x Class 300 ANSI
- * Vapour return flange: 20 mm x Class 300 ANSI

Drawings DJB-0859 or DJB-1127 shows the location of flanges with respect to the Dispenser Base.

The pipework under the dispenser should be made up to match the Dispenser flanges. The flanges must be level in both horizontal axes.

Note: Alternative flange sizes, or spool pieces to match different flange locations, can be provided if required; see your local Batchen representative for details.

4.5 Dispenser Base

It is recommended that a pre-fabricated steel base set into concrete be used to mount the dispenser.

This should be installed such that the surface for mounting the dispenser is a minimum of 50 mm above ground level, with concrete paving sloping away from the base.

A number of optional hole positions are provided in the Dispenser Frame for mounting bolts; these various options are shown on drawings DJB-0859 or DJB-1127. Four attachment bolts should be used - 1/2" x 2 1/2" or M14 x 65 mm.

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PART 5

DISPENSER INSTALLATION

WARNING

DO NOT SWITCH ON MAINS POWER TO DISPENSER BEFORE COMPLETING PART 6.1 - INITIAL CHECK, AND PART 6.2 - DISPENSER ELECTRONIC SETUP.

5.1 Dispenser Inspection

When the Dispenser arrives on site, the shipping carton should be removed and the Dispenser inspected for damage. If damage is evident, it should be immediately reported to the carrier and your local Batchen representative for insurance purposes.

5.2 Dispenser Preparation

Before commencing the installation of the dispenser at least the hydraulics cabinet panels should be removed to prevent damage during the installation.

5.3 Dispenser Lifting

WARNING

LIFTING THE DISPENSER OTHER THAN AS DESCRIBED RISKS SERIOUS DAMAGE TO THE DISPENSER AND PERSONNEL INVOLVED.
ON NO ACCOUNT SHOULD THE DISPENSER BE LIFTED BY PLACING A SLING UNDER THE ELECTRONICS CABINET.

The dispenser may be lifted using a suitable forklift, crane or other mobile lifting equipment. Lifting equipment used must have a capacity of at least 250 Kg.

- * If a forklift is to be used, the tines of the forklift should be placed through the pallet that the dispenser is mounted on for shipping.
- * If a crane is to be used, a sling provided with a suitable protective cover to prevent scratching should be used.

The sling should be placed under the top member of the hydraulics compartment frame and then over the front faces of the electronics cabinet.

5.4 Positioning the Dispenser on the Dispenser Base

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Position the dispenser on the base and check for correct alignment between:

- * The chosen mounting bolt holes in the Dispenser Frame and the corresponding holes in the Dispenser Base.
- * The Liquid Inlet and Vapour Return flanges of the Dispenser and site pipework.

Correct any problem before proceeding.

5.5 Flange Connections and Dispenser Attachment Bolts

The Liquid Inlet and Vapour Return line flanges should be connected using a suitable gasket (we recommend ??) and bolts. The bolts should be tightened to ??.

The dispenser baseplate bolts should be fitted and tightened to ??.

5.6 Fitting Hosemasts (Commander II only) and Hoses

5.6.1 Commander II

Step 1: Check that the Hosemast attachment bolt/s at the top of the (major) column are tight. If not, remove the column cover and tighten.

Check that the column cap is in place.

Step 2: Locate the large plastic washer/s (shipped inside the electronics cabinet) and place over the Hosemast attachment bolt/s.

Step 3: Remove the Hosemast/s from their packaging and screw onto the attachment bolts. Tighten firmly by hand.

Step 4: Remove the Hose Assemblies from their packaging and connect the male end of the Sentry 20 Hose Breakaway Coupling to the female end (see instructions on the base of the column). Tighten retaining collar correctly.

Step 5: Insert the pin of the Hose Support Clamp/s into the corresponding hole in the top of the Hosemast/s. Push firmly until it snaps home. Check for the correct location of the retaining circlip.

Step 6: Check that the Hose Support Clamp/s are located correctly on the hose/s i.e. that the hose/s do not contact the ground, and that there is sufficient length for the Nozzle/s to be inserted easily into the nozzle receptacle/s.

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5.6.2 Concept 2000

- Step 1: Remove the Hose Assemblies from their packaging and connect the male end of the Sentry 20 Hose Breakaway Coupling to the female end (see instructions on the base of the column). Tighten retaining collar correctly.
- Step 2: Use Ti-wrap/s and Hose Protection Sleeve/s (shipped inside the electronics cabinet) to secure the Hose/s to the Hose Suspension Cables at the top of the column.
- Step 3: Check that the Hose support/s are positioned located correctly on the hose/s i.e. that the hose/s do not contact the ground, and that there is sufficient length for the Nozzle/s to be inserted easily into the nozzle receptacle/s.

5.7 Field Wiring Tests

The following tests are designed to detect any faulty wiring which, if not corrected, may cause injury, damage or faulty system operation.

These tests should be performed as specified by suitably qualified personnel.

5.7.1 Equipment Required

A 500 V "intrinsically safe" megger test unit.

Note: Any cable being tested should be completely disconnected from the Dispenser and mains supply.

Note: After the test is completed the cables must be discharged to ground before any connections are made to the Dispenser.

5.7.2 Megger Test

Perform megger tests on all wiring installed. The tests must be made between adjacent conductors, and between each conductor and earth.

The minimum resistance should be 50 megohms.

Any faults found should be rectified and re-tested before proceeding.

5.8 Electrical Connection to Dispenser

All electrical connections to the dispenser are made via a terminal strip located in the black plastic "Ex e" enclosure located at the Compliance Plate end of the hydraulics cabinet (see DJB-0874).

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Note: Before proceeding, the installer should familiarise himself with the dispenser electrical schematic (see DJB-1176).

Note: Cable entries to the "Ex e" enclosure should be made through appropriate M20 glands that are suitable for the cable used (e.g. SWA cable requires a different gland from TPS cable that is run in conduit).

The glands replace an M20 blanking plug and are not supplied with the Dispenser.

Note: If a communication cable is not required the blanking plug must be left in place.

Note: SWA glands are provided with a facility for earthing the wire armour. This should be connected to the earth busbar provided in the "Ex e" enclosure.

5.8.1 Terminating Cables

The junction box layout and method of terminating cables is shown in DJB-0874.

Note: The communications cable is not polarised. However the phasing must be consistent with all other dispensers/pumps on the site.

Note: The outer insulation sleeve of cables should not be stripped back more than necessary, and certainly no more than 20 mm.

Note: The mains cables should be kept well clear of the communications cables.

Note: Stranded cables should not be soldered before insertion in the terminals.

Note: Care should be taken to tighten terminals securely.

Note: Non "Ex e" terminals must not be used for terminating cables in this enclosure.

10 individual "Ex e" terminals are provided. The function of each of these is as follows:

Terminal Number	Function
12	Communications Cable #1
11	Communications Cable Shield
10	Communications Cable #2
Location of terminal barrier	

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Terminal Number	Function
6,7	Spare
4,5	Emergency Stop Switch if fitted
3	Remote Pump contactor control relay
2	Mains Supply – Neutral
1	Mains Supply - Active
Earth Busbar	All mains cable earths, and SWA cable armour

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PART 6

DISPENSER COMMISSIONING

6.1 Initial Check

Remove all rubbish associated with dispenser installation from the area of the dispenser.

Check that:

- * All electrical cables are terminated correctly.
- * All junction box covers have been replaced and correctly secured.
- * All junction boxes have any unused ports blanked off with an appropriate blanking plug.
- * All manual valves in the dispenser are closed.

6.2 Selection of Communications Protocol

Dispensers with model numbers (see Compliance Plate) ending in an "E" (e.g. CII-??E or C2000-?E) can provide either Email or Gilbarco communications protocols. Dispensers are shipped configured for Email communications, unless specified otherwise at the time of ordering.

When set for Email communications protocol the screened Communications Cable (coming from the "Ex e" junction box in the hydraulics cabinet) terminates on the connector "J7" on the Computer PCB.

When set for Gilbarco communications protocol the screened Communications Cable (coming from the "Ex e" junction box in the hydraulics cabinet) terminates on the connector "J2 - GILBARCO" on the Gilbarco Interface PCB.

6.2.1 Changing from Email to Gilbarco Communications Protocol

Step 1: Disconnect the shielded communications cable coming from the "Ex e" junction box at the connector "J7" on the upper side of the Main Processor PCB and reconnect to the connector "J2 - GILBARCO" Gilbarco Interface PCB.

Step 2: Connect the second cable on Gilbarco Interface PCB ("J1 - EXT. COMMS" connector) to the "J12 - EXT. COMMS" connector on the Computer PCB.

Note: See also section 6.4

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6.2.2 Changing from Gilbarco to Email Communications Protocol

Step 1: Disconnect the shielded communications cable coming from the "Ex e" junction box at the Gilbarco Interface PCB ("J2 - GILBARCO" connector) and reconnect to the J7 connector on the upper side of the Computer PCB.

Step 2: Disconnect the second cable on Gilbarco Interface PCB ("J2 - EXT. COMMS" connector) going to the "J12 - EXT. COMMS" connector on the Computer PCB at the Computer PCB.

Note: See also section 6.4

6.2.3 Console Compatibility

The following are guides to set-up with particular consoles/site controllers:

General:

- * When using Email communications protocol, and hence not using the Gilbarco Interface PCB, you must disconnect the cable from the Gilbarco Interface PCB to the Computer PCB at the Computer PCB (see section 6.2.2).

EFPEC Console:

- * The EFPEC console is not compatible with Email protocol. You must use the Gilbarco Interface PCB and fit a Gilbarco Pump Slave Board to the EFPEC console.

If the site already has two different types of pumps/communications (e.g. old Email and PEC) then this is not an option and you should use a Batchen dispenser with PEC/Compac communications (i.e. model number ending in "P").

Gilbarco Consoles:

- * Ensure that all Gilbarco pumps on the same communications loop have the same software version.
- * Ensure that you use the correct Gilbarco communications protocol - see section 6.4.
- * If you cannot resolve a communications problem, try (if possible) putting the dispenser on a separate communications loop.

PEC 8850 Console:

- * Console should be set up to provide "Email 1 Hose MPP" communications for the dispenser.

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Postec Site Controller:

- * Preferred protocol is PEC/Compac; use a Batchen dispenser with PEC/Compac communications (i.e. model number ending in "P").

6.3 Applying Mains Power

The Dispenser is now ready to have mains power applied to it - switch on the mains at the main switchboard.

The Dispenser should proceed through its initialisation sequence. This should proceed as follows:

- * Main displays show the message "Cold Boot" briefly.
- * Dispenser lights may or may not turn on.
- * At the end of the "Boot" procedure the displays will show.

Value	"0.00"
Volume	"0.00"
Unit Price	"NNN.N"

If dispenser initialisation sequence does not proceed as above see Fault Finding Guide in Service Manual. The Dispenser incorporates a range of diagnostic functions which may assist in locating the nature of the problem

6.4 Initial Dispenser Software Set-up

To operate correctly, the dispenser software must be set-up. This is done through a number of Software Functions. Full details of these functions are given in the Manager/Service/Calibration Functions section in the Service Manual; brief details of only those functions necessary to be set up at this stage are given here.

6.4.1 Accessing Functions

The Manager/Service/Calibrate functions are accessed by putting the dispenser into Function Mode. This is done as follows:

1. First ensure that all transactions are completed and the nozzles in their respective receptacles.
2. Rotate the key operated lock for the A side display door to the open position.
3. When in Function Mode, the pre-set display (if fitted) should show "FUNC", and the transaction details are replaced by dashes ("-----"), providing all transactions are completed.

In the Function mode the operation of the Preset keys is changed as follows:

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MODE	KEY:			
Normal Mode	\$5	\$10	\$20	C(lear)
Function Mode	SERVICE	MANAGER, or SHIFT DIGIT	DOWN	UP

Note: In a dual hose dispenser either of the keypads may be used for the Manager/Service/Calibration functions i.e. when in Function mode the keypads are not hose specific.

Note: If the dispenser is a non pre-set model, the keypad is hidden. The location of the keys is indicated by breaks in the decal lined graphics pattern or four white dots. The table above shows the keys in order from the left.

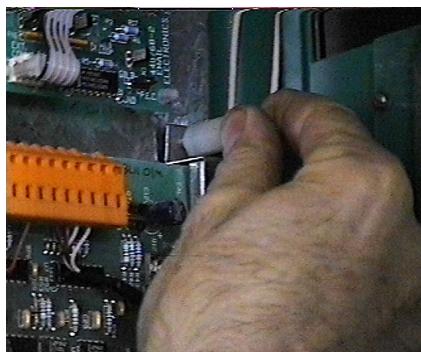
Alternatively a Keyboard Template may be used - see Installation Accessories & Tools section.

To select different Manager/Service functions, repeatedly press the respective SERVICE or MANAGER key until the appropriate function message is displayed in the transaction displays.

To select different Calibration functions, repeatedly press the CAL(ibration) key until the appropriate function message is displayed in the transaction displays. The CAL(ibration) key (SW2) is located in the upper left hand corner of the Computer PCB, behind a Weights & Measures sealing cover (see photograph below).

Note: Selection of functions follows the same pattern for all functions:

* Enter Function mode as above.



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- * Press the MANAGER, SERVICE or CAL(ibration) key to select the desired function.
- * If the value/parameter displayed is to be altered, use the UP or DOWN keys to alter the value, or to cycle through the available options.
- * When a value/parameter shown applies to a specific hose (e.g. Price), lift the appropriate nozzle to indicate which of the hoses is being selected.
- * For values with more than 2 digits use the SHIFT DIGIT key to select the digit to be changed (indicated as a small number from 1 to 5 at the centre right of the special segments display) and then the UP or DOWN keys.
- * When finished with a particular parameter press the MANAGER or SERVICE key to enter the value and move to the next parameter.
- * When finished with all parameters press the MANAGER, SERVICE or CAL(ibration) key repeatedly to return the displays to "-----" and then exit the Function mode by rotating the key operated lock on the display door to the locked position.

6.4.2 Set-up Procedure

- Step 1: Access Manager functions.
- Step 2: Access "Lights" function; use UP/DOWN keys to set lights "On" or "Off" as desired.
- Step 3: Exit Manager functions.
- Step 4: Access Service functions.
- Step 5: Access "SEt PricE" function; lift nozzle of Side A hose and use UP/DOWN and SHIFT DIGIT keys to set price; return nozzle to receptacle; repeat for Side B.
- Note: Only displays on respective display.
- Step 6: Access "StAnd-ALOnE/On-LIne" function; use UP/DOWN keys to select "StAnd-ALOnE".
- Step 7: Exit Service functions.
- Step 8: Access Calibrate functions.
- Step 9: Access "tYPE" function; use UP/DOWN keys to set Dispenser Type to either "1P1h" (single hose dispenser) or "1P2hL" (dual hose dispenser).

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Step 10: Access "Communications Protocol" function. Use UP/DOWN keys to select "EMAL", "giLb ELEct" or "giLb MPP" as appropriate.

Note: See also section 6.2.

Step 11: Access "Density" function; use the UP/DOWN and SHIFT DIGIT keys to set LP Gas Density as required (510 to 580 - usually set to mid-point of range of values expected for site).

Step 12: Access "tcorr" function; use UP/DOWN keys to set Temperature Compensation "On" or "Off" as required.

Step 13: Access the "PrSt" function. Use UP/DOWN keys to select "EnAbL", "diSAb" as appropriate.

Step 14: Exit Calibrate functions.

Step 15: Exit Function mode; displays should show:

Value:	"0.00"
Volume:	"0.00"
Price/Unit:	"NNN.NN"

If any problem is experienced see Fault Finding Guide in Service Manual.

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6.6 Introducing LP Gas to the Dispenser

WARNING

ENSURE THAT ALL DISPENSER JUNCTION/FLAMEPROOF BOX COVERS ARE IN PLACE AND ALL CABLES SECURED.

ENSURE THAT NO SOURCES OF IGNITION ARE PRESENT IN THE AREA OF THE DISPENSER.

6.6.1 Introducing LP Gas Vapour

Step 1: Ensure that all manual valves (including bleed valves) in the Dispenser are closed.

WARNING

IT IS IMPORTANT BOTH IN THIS SECTION AND THE NEXT, TO INTRODUCE LP GAS/LIQUID SLOWLY, AS RAPID INTRODUCTION OF VAPOUR OR, PARTICULARLY, LIQUID MAY CAUSE OVERSPEEDING OF THE METER/S AND DAMAGE TO METER COMPONENTS.

SUCH DAMAGE IS NOT COVERED BY WARRANTY.

Step 2: Open the valve on the Vapour Return line (located underneath the Dispenser).

Step 3: Slowly open the 3-way Valve in the Vapour Lines of Dispenser to first one side then other side (if dual Dispenser) and watch pressure gauge (if fitted to Vapour Eliminator) slowly increase to tank pressure.

Watch for any obvious leaks.

Note: If a pressure gauge is not supplied with the dispenser, one can be fitted to the Needle Valve on the Vapour Eliminator.

Step 4: Slowly open the 3-Way Valve in the Liquid Lines of the Dispenser to first one side then the other side (if dual Dispenser).

Watch for any obvious leaks.

Step 5: Use a weak solution of detergent in water to check for leaks on all threaded and flanged joints, and welds. A leak is indicated by an expanding bubble.

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If any leaks are detected, close all valves and contact your local Batchen Representative to repair the Dispenser.

Step 6: If no leaks are found, close the 3-Way Valve in the Liquid Line, and proceed to the next section.

6.6.2 Introducing LP Gas Liquid

Step 1: Ensure that the 3-Way Valve in the Liquid Line of the Dispenser is fully closed.

Step 2: Open the valve underneath the Dispenser on the Liquid Line.

Watch for any obvious leaks.

Step 3: Very slowly open the 3-Way Valve in the Liquid Line in the Dispenser to first one side then the other side (if dual Dispenser).

Be alert for over speeding of the meter/s.

Watch for any obvious leaks.

Step 4: Remove Nozzle/s from their receptacles and check that remote pump starts. Displays should blank, then show all "8"s, then as below:

*	Value:	"0.00"
*	Volume:	"0.00"
*	Price/Unit:	"NNN.N"

Step 5: Slowly open the Angle Valve for each side.

Be alert for over speeding of the meters.

Step 6: Use a weak solution of detergent in water to check for leaks on all threaded and flanged joints, and welds. A leak is indicated by an expanding bubble.

If any leaks are detected, close all valves and contact your local Batchen Representative to repair the Dispenser.

Step 7: If no leaks are found, return the Nozzles to their receptacles..

6.7 Final Dispenser Software Set-up

6.7.1 Stand-alone Operation

No further action required.

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6.7.2 Self-serve Operation:

Note: Check operation in Stand-alone mode first - see section 6.8.1.

If dispenser is to be operated in Self-serve mode:

- Step 1: Access Service Functions
- Step 2: Access "Stand-alone/On-line" function; use UP/DOWN keys to select "On-line".
- Step 3: Access "P No" function; lift nozzle of Side A hose; use UP/DOWN keys to set hose number to correspond with Console; return nozzle to receptacle; repeat for Side B.
- Step 4: Exit Function mode; displays should show:
- * Value: "0.00"
 - * Volume: "0.00"
 - * Price/Unit: "NNN.NN"
- Step 5: Press RESET button SW1 on Computer PCB (see DJB-1176); after Dispenser "re-Boots" displays should return to status as in Step 4.

If any problem is experienced see Fault Finding Guide in Service Manual.

6.8 Verifying Dispenser Operation

6.8.1 Stand-alone Operation

- Step 1: Remove one Nozzle from it's receptacle and connect to Acme Filler Valve on Vapour Return line. Circulate approximately 100 litres.
- Step 2: Check that flow rate is adequate.
- Step 3: If dual Dispenser, repeat for other hose.

If operation is not correct see Service Manual for guide to locating fault.

6.8.2 Self-serve Operation

- Step 1: Check that Console is turned on and that product code and pricing structure for LP Gas has been allocated at the Console (refer to the Console Manual for details).
- Step 2: Remove Side A Nozzle from it's receptacle and connect to Acme Filler Valve on Vapour Return line.

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Step 3: Check that Console is requesting authorisation for correct hose; authorise hose.

Step 4: Connect Nozzle to Acme Filler Valve on Vapour Return line. Check for LP Gas flow.

Step 5: Return Nozzle to Nozzle receptacle.

Step 6: If dual Dispenser, repeat for Side B.

If operation is not correct see Service Manual for guide to locating fault.

6.9 Calibrating the Dispenser

The Dispenser was calibrated prior to dispatch from the factory; however this should be verified at this time and Weights & Measures seals applied.

See Service Manual for details.

6.10 Finishing Off

Replace all panels.

Touch up paint wherever necessary.

PART 7

INSTALLATION REPORTING

At the back of this manual is an Installation Report. Remove the page and complete all sections.

Insert one copy at the back of the Operators Manual and leave on site.

Return one copy to:

- * The Service Manager
D.J. Batchen Pty Ltd
P.O. Box 254 Auburn
Australia 1835

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PART 8

INSTALLATION ACCESSORIES & TOOLS

MODEL	PART NUMBER	DESCRIPTION
Commander II, & Concept 2000 (Email)	MAN-0040	Operators Manual
Commander II, & Concept 2000 (Email)	MAN-0042	Service Manual

PART 9

SPECIFICATIONS

9.1 Hydraulics

Recommended Maximum Flow Rate:	60 litres/minute
Recommended Minimum Flow Rate:	10 litres/minute
Maximum Operating Pressure:	23.8 bar
Liquid Temperature Range:	-10°C to +70°C
Overall Accuracy:	+/- 0.5%
Linearity:	+/- 0.5%
Repeatability:	+/- 0.2%

9.2 Price Computer & Displays

Total Volume Display Range:	0 - 999.99 units
Total Value Display Range:	0 - 99999 units (variable decimal point)
Price per Unit Display Range:	0.99999 units (variable decimal point)
Cumulative Volume Display Range:	0 - 99999 units
Cumulative Value Range:	0 - 99999 units
Maximum Metering Resolution:	2 millilitres or equivalent (@ 100 litres/minute) 1 millilitre or equivalent (@ 50 litres/minute)
Calculation Accuracy:	Rounded to nearest sub-unit of currency
Data Retention:	Indefinite

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9.3 Electrical & Environmental

Mains Supply:	110 Volt (+/- 5%), or 240 Volt (+/- 5%) (see <u>Compliance Plate</u>)
	1 Ampere
	50 or 60 Hz (see <u>Compliance Plate</u>)
Operating Temperature Range:	-10°C to +70°C ambient
Humidity Range:	0 - 90% (non-condensing)

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PART 10

TECHNICAL DRAWINGS

- DJB-0874 COMMANDER II AND CONCEPT 2000 LPG DISPENSER
EXE JUNCTION BOX DETAILS
- DJB-0859 COMMANDER II LPG DISPENSER
BASE FRAME AND FLANGE DETAILS
- DJB-1127 CONCEPT 200 LPG DISPENSER
BASE FRAME AND FLANGE DETAILS
- DJB-1176 COMMANDER II AND CONCEPT 2000 (EMAIL) ELECTRONIC
SCHEMATIC

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INSTALLATION CERTIFICATE

All blank spaces must be filled in.

Write N/A if the information does not apply to this installation.

Please place completed certificate inside pocket at back of Operator's Manual.

LPG DISPENSER MODEL NO. _____

LPG DISPENSER SERIAL NO. _____
(see nameplate on side of LPG Dispenser)

Electrical Installation Commissioning completed by:

Name: _____ Signature: _____

License No: _____ Date: _____

Density: _____

K Factor (side A): _____

K Factor (side B) : _____

LPG Installation completed by:

Name: _____ Signature: _____

License No: _____ Date: _____

Pump Differential Pressure: _____

Self Serve Commissioning (if applicable) completed by: _____

Name: _____ Signature: _____

License No: _____ Date: _____

Important Contacts: _____

Emergency:

Service:

Installation LPG: _____

Installation Electrical: _____

